DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 78Fred Hudson.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-030077
Date Inspected: 28-Sep-2013

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Steward Machine Co.

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: Birmingham, AL

CWI Name: Fred Hudson

Inspected CWI report:	☑ Yes	☐ No	☐ N/A	**CWI Present:**	☑ Yes ☐ No
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☐ Yes ☐ No ☑ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes ☐ No ☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes ☐ No ☑ N/A
				Approved WPS:	☑ Yes ☐ No ☐ N/A
				Delayed / Cancelled:	☐ Yes ☑ No ☐ N/A

Bridge No: 34-0006
Component: E2 Shear Key Anchorages

Summary of Items Observed:

Quality Assurance Inspector (QAI) Fritz Belford was present on the date and times noted above in order to observe the fabrication and Quality Control (QC) functions performed by Steward Machine Company for the E2 Shear Key Anchorages for the SFOBB project. Material Test Reports (MTRs) for all materials used have been reviewed and approved by others at the XKT shop in Vallejo California prior to shipping to Steward Machine Company. The following items were observed:

STEWARD MACHINE - PLANT 1:
The QA performed a walkthrough at the shop to verify plates on site and to observe Steward Machine personnel at work machining and welding. Work performed at the Steward Machine shop as noted below:

S3B Assembly:
The assembly was removed from CNC #231. Strap welds for J3, K4, M4, P4 & R3 were observed cleaned for Magnetic Particle Testing. After cleaning and MT of strap welds the Sikadur 35 LV was applied to fill gaps between plates as required by contract drawings.

S4C Assembly:
Steward shop personnel were observed blasting and verifying blast profiles for the e4 & f4 plates faying surfaces before assembly and welding the root pass. After root pass MT of both sides the welder began running cover passes to fill the weld groove. Welding was performed by welder Jeff Hennington (#476) utilizing Welding Procedure Specifications (WPS) P2-W128-B and P2-W126-B for FCAW-G in the 1G position. The welding parameters were observed adjusted and monitored by Certified Welding Inspector (CWI) Fred Hudson (Cert.

#01061501) who was onsite with the WPS as required by contract documents. The welding parameters were measured to be 30volts/300amps using 1/16" Class E70T-1 filler and 100% CO2 at 40cfm.

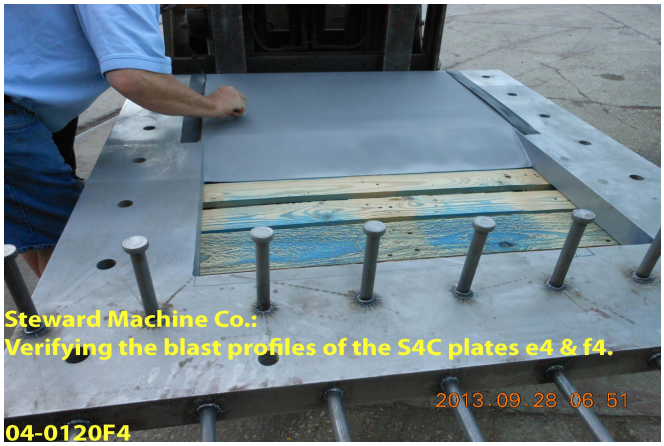
S3C Assembly:
Assembly was removed from CNC 230 and was applied the Sikadur 35LV as required by contract drawings to fill gaps between plates.

The following plates were noted staged throughout the shop in various stages of processing.
Bay 4 – Plate:
S3C-e3. Milling complete.

COMPONENT RELEASES.
None.

NON-DESTRUCTIVE TESTING (NDT).
S4C: Root pass for the e4 to f4 plates weld groves on sides A & B. (MT acceptable. See TL-6028 for MT report)
S3B: Strap PJP Welds and S3 Fillet welds on side B. (MT acceptable. See TL-6028 for MT report)

The QC Inspector was observed performing 100% Magnetic Particle Testing (MPT) and accepting of items noted above prior to QA Inspector's verification MPT.



WELDING INSPECTION REPORT

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Summary of Conversations:

As required for scope of work.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764 - 6027, who represents the Office of Structural Materials for your project.

Inspected By:	Belford,Fritz	Quality Assurance Inspector
Reviewed By:	Foerder,Mike	QA Reviewer